

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

TYPE CERTIFICATE DATA SHEET NO. P40EA

P40EA Revision 12 Hartzell HC-B4T December 19, 2006

Propellers of models described herein conforming with this data sheet (which is part of Type Certificate No. P40EA) and other approved data on file with the Federal Aviation Administration meet the minimum standards for use in certificated aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Federal Aviation Regulations provided they are installed, operated and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

Type Certificate Holder	Hartzell Propeller Inc. Piqua, OH 45356
Type	Constant speed; hydraulic (see Notes 3 and 4)
Engine shaft	Special flange: (see Note 1)
Hub material	Alloy Steel
Blade material	Aluminum Alloy
Number of blades	Four
Hub models	HC-B4TN-3, HC-B4TN-5 (see Notes 1 and 4)

Blades (see Note 2)	Maximum Continuous		Takeoff		Diameter Limits (see Note 2)	Approx. Max. Wt. Complete (For Reference Only) (see Notes 3 and 7)
	HP	RPM	HP	RPM		
T9212-0 to T9212-10	850	2000	850	2000	93" to 83" (-0 to -10)*	158 lb.
T9216-0 to T9216-10	850	2000	850	2000	93" to 83" (-0 to -10)*	158 lb.
T10574-0 to T10574-16	950	1620	950	1620	106" to 90" (-0 to -16)*	165 lb.
T10574A-0 to T10574A-16	950	1620	950	1620	106" to 90" (-0 to -16)*	168 lb.
T10576-0 to T10576-16	950	1591	950	1591	106" to 90" (-0 to -16)*	170 lb.
T10173+1 to T10173-21	900	2200	900	2200	103.5" to 81.5" (+1 to -21)**	155 lb.
T10173AN-12.5 to T10173AN-21	750	2200	900	2200	90" to 81.5" (-12.5 to -21)**	157 lb.
T10173F-12.5 to T10173F-21	750	2200	950	2200	90" to 81.5" (-12.5 to -21)**	153 lb.
T10176+1 to T10176-21	900	2200	900	2200	103.5" to 81.5" (+1 to -21)**	155 lb.
T10178-0 to T10178-21	950	2200	950	2200	102.5" to 81.5" (-0 to -21)**	165 lb.
T10282-0 to T10282-22	950	2200	950	2200	103" to 81" (-0 to -22)*	165 lb.

Blades (see Note 2)	Maximum Continuous		Takeoff		Diameter Limits (see Note 2)	Approx. Max. Wt. Complete (For Reference Only) (see Notes 3 and 7)
	HP	RPM	HP	RPM		
T10282+6 to T10282-0	950	1591	950	1591	109.25" to 103" (+6 to -0)***	166 lb.
	800	2000	800	2000		
T10890N-0 to T10890N-6	950	1591	950	1591	109.5" to 103.5" (-0 to -6)**	186 lb.

Certification Basis: 14 CFR Part 35 effective April 3, 1967 with amendments 35-1 and 35-2 thereto.
Type Certificate no. P40EA issued April 27, 1971 under Delegation Option Authorization procedures of 14 CFR Part 21 Subpart J.
Date of application for T.C.: April 6, 1971

The following models were included under the original certification basis:
HC-B4TN-3, HC-B4TN-5

The following models were added, updated or revised in accordance with 14 CFR Part 35 with amendments 35-1 through 35-5 effective October 14, 1980:
HC-B4TN-3, HC-B4TN-5

The following models were added, updated or revised in accordance with 14 CFR Part 35 with amendments 35-1 through 35-6 effective August 1, 1990:
HC-B4TN-3, HC-B4TN-5

Production Basis: Production Certificate no. 10

Note 1: Hub Model Designation (See Notes 4 and 5)

HC - B 4 T N - 3 A

- L when used denotes left hand rotation
- Any other character denotes minor change not affecting eligibility
- Denotes specific design features
- 3: external beta feedback mechanism
- 5: start locks, internal beta feedback mechanism
- N denotes special flange with 8 - 9/16" bolts and 2 dowels on a 4 1/4" B.C.
- Hartzell blade shank size
- Number of blades
- Identifies basic design
- Hartzell Controllable

Note 2: Blade Model Designation (See Notes 5 and 6)

<u>L</u>	<u>T</u>	<u>101</u>	<u>73</u>	<u>FHB-2Q</u>	
					Number when used indicates inches cut off from (or added to if preceded by '+') basic diameter
					Q when used denotes special 1" x 90 deg. factory-bent tip.
					R when used denotes round blade tip shape
					B, E or K denotes deicing boots
					H denotes hard alloy
					N denotes shank modification
					S denotes shot peened surface
					Any other character denotes a minor modification not affecting eligibility
					Basic blade model
					Basic diameter in inches for a three blade propeller. Corrections are as follows:
					* Add 1.0 inch.
					** Add 1.5 inches.
					*** Add 1.25 inches for T10282+6 only. Add 1.0 inch for all others.
					Denotes needle bearing installation in blade shank
					L when used denotes left-hand rotation

Note 3: Pitch Control (weight of pitch control extra) (See Notes 4 and 10)

- (a) All models have counterweighted blades and use governor oil to decrease pitch.
- (b) All governors and propeller control systems must be approved as part of the aircraft installation regardless of manufacturer.
- (c) Maximum control pressure for all models: 500 psig

Note 4: Feathering

- (a) The -3 and -5 models incorporate feathering and unfeathering features.

Reversing

- (a) The -3 and -5 models are approved for installation as reversing propellers with reversing controls.

Note 5: Left-Hand Models (See Notes 1 and 2)

The left-hand version of an approved propeller model is approved at the same rating and diameter as listed for the right-hand model.

Note 6: Interchangeability (See Note 2)

- (a) Hard and soft alloy blades of the same model designation are interchangeable.
- (b) Blades with the suffix "N" in the basic model number may replace those without an "N" either individually or as a set. Likewise, blades with the suffix "S" in the basic model number may replace those without an "S" either individually or as a set. When the aircraft Type Certificate or Supplemental Type Certificate specifies blades with the letters "N" or "S" in the basic model number, those characters must be retained in all replacement blade models.

For example: Blades with neither "N" nor "S" may be replaced by "N", "S" or "NS" blades,
 "N" blades may be replaced by "NS" blades,
 "S" blades may be replaced by "NS" blades.

- (c) Refer to Hartzell Service Letter HC-SL-30-260 for ice protection system component interchangeability.

Note 7: Accessories

- (a) Propeller spinner (weight of spinner extra)
 - (1) Approved with Hartzell and other manufacturers' spinners when listed on Hartzell type design data.
- (b) Propeller deice (weight of deice system extra)
 - (1) Approved with Goodrich electrical deicing kit 5EXXXX-X, 7EXXXX-X, 77-XXX, 67-XXX or 65-XXX when the specific kit number is listed on Hartzell type design data and installed in accordance with Goodrich report no. ATA 30-60-07, Goodrich drawing no. 7E-1284 or Beech installation drawing no. 50T-389045.
 - (2) Approved with ice protection equipment when listed on Hartzell type design data.

Note 8: Shank Fairings Not applicable.

Note 9: Special Limits Not applicable.

Note 10: The propeller installation must be approved as part of the aircraft type certificate to demonstrate compliance with the applicable aircraft airworthiness standards.

Propeller models listed herein consist of basic hub and blade models. Most propeller models include additional characters to denote minor changes and specific features as explained in Notes 1 and 2. Refer to the aircraft Type Certificate Data Sheet for the specific propeller model applicable to the installation.

Note 11: Retirement Time

- (a) Life limits and mandatory inspections. Airworthiness limitations, if any, are specified in Hartzell Maintenance Manual 118() or Service Letter 61().

Note 12: Special Notes

- (a) Refer to Hartzell Manual no. 202() for overspeed and overtorque limits.
- (b) Refer to Hartzell Service Letter HC-SL-61-61() for overhaul periods.

END